

Remarks

Claims 1- 11 15, 16, and 18 – 23 are pending and reconsideration of those claims is requested.

Applicant would like to thank Examiner Labbes for the opportunity to discuss this application during the office interview of March 28, 2006. Applicant agrees with the substance of the interview summary prepared subsequent to that interview.

Claim 1 features a method of communicating a warning signal by mounting a transmitter and a receiver to an emergency vehicle that outputs a digital signal that is detectable within a range. The transmitter is turned off at periodic intervals to allow receipt of the signal of other emergency vehicles in the vicinity. A receiver is mounted in a private or commercial motor vehicle that responds to the digital signal from the transmitter of a transmitting emergency vehicle to detect the digital signal. The digital signal is transmitted from the transmitter when an emergency vehicle light bar but not the siren of said emergency vehicle is actuated. A visual warning is displayed from a visual indicator mounted to a motor vehicle having a receiver that responds to receipt of the digital signal from the transmitter to warn a motorist and/or other emergency vehicles of a presence of the transmitting emergency vehicle whose light bar has been actuated is within said range.

Emergency vehicle silent approach (crime in progress for example) is an especially important use of the invention. No siren warns the motorist of the presence of an emergency vehicle yet the use of silent approach can present a significant danger to other motorists in the vicinity. If an emergency vehicle, such as a police car, is stopped by the side of the road yet no emergency exists the siren will not be active yet use of the invention will warn the motorists in passing vehicles. During any routine traffic stop to ticket a speeder or to investigate a vehicle malfunction motorists in the vicinity will be apprised of the presence of the emergency vehicle. So long as the vehicle light bar is on (and it typically is in such a situation), other motorist and other emergency vehicles in the vicinity, within the working distance of the transmitter, will be warned about the presence of the police car by the side of the road. Other situations handled by the process recited in claim 1 would of course be silent approach during an actual emergency or

crime in progress, a funeral procession where an escort leads the procession with no siren. A hospital ambulance transporting patients in a non-life threatening situation. A snow plow up ahead with its lights flashing but no siren. In all these scenarios, the receiver would respond to an emitted signal to warn the motorist of the presence of the source of the flashing lights.

To establish a *prima facie* case of obviousness under section 103, three basic criteria must be met. See MPEP sec 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Second, there must be some reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.*

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the Applicants' disclosure. *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir 1991). Moreover, it is improper to combine references where the references teach away from the claimed invention. See MPEP 2143.01.

Claim 1 has been amended to define alternate on/off transmitter performance to prevent an emergency vehicle receiver from responding to its own transmitter. In the last office action, the Examiner rejected this feature of claims 20 and 21 as being obvious in view of the teaching of a combination of references including a reference to periodic signals in the reference to Yu et al (US 6,807,464), col 5, line 34. To meet the other recitations in claim 1 the Examiner has relied upon a combination to Jackson (US 5,235,329) and Gibbons et al (US published application 2002/0102961).

As pointed out in the last amendment, the Jackson reference uses receivers that are wavelength scanners blanked to a transmitter's frequency. As discussed during the patent office interview of March 28, 2006, such a solution is not practical in a large metropolitan area since this would require tens of thousands of unique frequencies for all the emergency vehicles in the region. If more than one vehicle has the same frequency, all vehicles having the same frequency are foreclosed from warnings from other emergency vehicles since it is blanked from that frequency.

Claim 1 features a transmitter that turns off its own signal at periodic intervals to allow

receipt by the receiver in that emergency vehicle of a signal from other emergency vehicles in the vicinity. This features is neither shown nor suggested in the prior art. Reliance on Yu et al for this aspect of claim 1 is a hindsight combination with Jackson since there is no suggestion of a problem in using the analog signal of Jackson and tuning the receiver to another frequency. This is not applicant's solution that is featured in claim 1. At col 5, line 37, Yu et al state "The vehicle control information may be transmitted, for example, periodically (e.g. every tenth of a second)" There is no mention why nor is there a suggestion that this is used to blank a receiver mounted in a motor vehicle from its own signal. This is not surprising since the transmitter of Yu et al is not in a motor vehicle nor is there mention of a transmitter and a receiver as recited in claim 1. The solution to the problem with the Jackson system is only found in applicant's disclosure and for this reason claim 1 is allowable.

Claim 1 additionally features "transmitting a digital signal from the transmitter/receiver if emergency vehicle light bar but not a siren of said emergency vehicle is actuated" The text of applicants disclosure states "a transmitter 12, which is activated by a switch 14 coupled to an emergency light bar" provides support for this feature.

Gibbons et al state "an emergency vehicle has a transmitter unit which is desirably automatically switch on whenever the flashing *lights and sirens* of the vehicle are activated" (page 1 paragraph 0012 of Gibbons et al.) emphasis added. This recitation teaches away from the process of claim 1 and this claim is allowable for this reason as well.

Claims 2 – 5, 14 – 16, and 23 depend from allowable claim 1 and are also allowable.

Claim 2 recites the method of claim 1 wherein the digital signal is transmitted by a single ultra high frequency signal shared by all agencies equipped with a transmitter. This feature of the invention allows nationwide coverage for the safety devices. A motorist (private or commercial) taking an extending cross country trip can be secure in knowing that so long as the emergency vehicles of a locale adopt this single ultra high frequency signal his or her receiver will respond appropriately. Jackson is inappropriate for use in a substantial sized metropolitan area and it is even more handicapped in addressing the needs of a mobile society traveling to different states. The logistics of assigning the multiple frequencies nationwide as required by Jackson would be a nightmare.

Claim 3 relates to a sharing of frequency by disciplines of the same type. Since Jackson suggests a different frequency for each vehicle there is no suggestion of use of a common identifier for vehicles of the same discipline. The combination of features recited in claim 3 is not shown nor is it suggested in the art and this claim is allowable.

Claim 4 features the process of claim 1 wherein the transmitter of an emergency vehicle outputs a digital signal that occurs at periodic intervals and is periodically turned off for 3 – 5 seconds while the emergency vehicle receiver monitors signals originating from other emergency vehicles. This feature is clearly neither shown nor suggested in the prior art and is allowable.

Claim 5 recites the method of claim 1 wherein the receiver of said emergency vehicle is responsive to a single universal frequency signal encoded with the digital signal that is shared by other emergency disciplines using the warning system regardless of the agency to which the vehicle belongs as well as use of different dispatchers. The comments above with regard to claim 2 are also appropriate and this claim is allowable.

Claim 23 features method of claim 1 wherein transmitters and receivers in emergency vehicles directly communicate without intermediate communications by means of a universal frequency transmitted between vehicles within said range. No need for a centralized dispatcher to get involved, the operator of the emergency vehicle decides when to activate his or her light bar and as a result emit a warning.

Claim 6 recites apparatus for communicating a warning signal including a transmitter in an emergency vehicle that outputs a digital signal that is detectable within a range and is turned off periodically. The transmitter includes means responsive to actuation of an emergency vehicle light bar for outputting said digital signal. A receiver responds to the digital signal from the transmitter in an emergency vehicle to detect said digital signal. A visual indicator mounted to the motor vehicle is activated in response to the digital signal from the transmitter to warn a motorist in said motor vehicle of a presence of the emergency vehicle within said range. A receiver within an emergency vehicle responds to other transmitters in other emergency vehicles during the period the transmitted signal of the receiving emergency vehicle is turned off.

These features are neither shown nor suggested in the prior art and in fact as mentioned above with regard to claim 1, the prior art cited by the Examiner teach away from this

combination of elements.

Claims 7 – 10, 17 – 19, and 22 depend from allowable claim 6 and are also allowable.

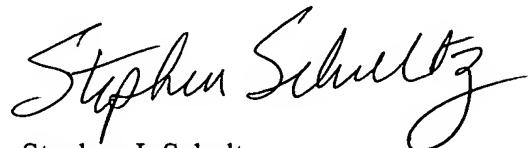
Claim 11 features a receiver adapted for mounting in a motor vehicle that responds to detection of one universal digital signal that conveys an emergency vehicle type or emergency vehicle identification originating from an emergency vehicle initiating an output signal by turning on its light bar. A display emits a visual warning in response to the output signal from the receiver; said display including a visual indicator mounted to the motor vehicle, which in response to the digital signal from the transmitter warns a motorist and/or an other emergency vehicle of a presence of the emergency vehicle within a range by displaying an indication of vehicle type or identification.

Quoting from the office action, “Regarding Claim 11, the claim is interpreted and rejected as claims 1 and 3 above” In rejecting claim 3, the Examiner relied upon US 6,630,892 to Crockford et al. Crockford et al neither shows nor suggests use of a receiver mounted to a motor vehicle. Additionally, there is no mention of a vehicle identification of an emergency vehicle which is conveyed to the receiver. For this reason claim 11 is allowable.

Claims 20 and 21 are amended but still recite subject matter neither shown nor suggested in the prior art patent to Yu et al. Note, as stated above with regard to claim 1, the feature of turning off the transmitter and receiver combination from its own signal at periodic intervals is not shown nor suggested in the art and the combination used to reject this feature is clearly a hindsight and therefore impermissible reconstruction of the claimed subject matter.

All claims are allowable and a prompt notification of allowance is solicited. The Commissioner is hereby authorized to charge any required fee under 37 C.F.R. ' 1.17 in connection with this communication to our Deposit Account No. 23-0630.

Respectfully submitted,



Stephen J. Schultz
Registration No. 29,108

Date: *July 18, 2006*

WATTS, HOFFMANN CO., L.P.A.
P.O. Box 99839
Cleveland, Ohio 44199-0839

Phone: (216) 241-6700
Facsimile: (216) 241-8151